

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (canceled).
2. (currently amended) The packet scheduling method according to claim ~~1~~ 4, 6 or 7, wherein the motion part packets are assigned priorities higher than those of the texture part packets.
3. (currently amended) The packet scheduling method according to claim ~~1~~ 4, 6 or 7, wherein the priorities of the packets are assigned so that an I-frame and a motion part of even-numbered P-frames of each picture sequence are assigned a highest priority and a texture part of odd-numbered P-frames of each picture sequence is assigned a lowest priority.
4. (currently amended) The packet scheduling method ~~according to claim 1~~ for streaming multimedia data by a server in a network, the network including the server for providing multimedia data divided into picture groups each having a sequence of N pictures and a terminal for displaying the multimedia data received from the server in a streaming manner, the method comprising the steps of:
 - dividing the sequences of the pictures into motion part packets and texture part packets, and assigning priorities to the packets according to temporal scaling;
 - determining a threshold θ_0 for a predetermined priority in consideration of conditions of a channel and a buffer status of

the terminal and constructing a substream using packets with priorities below the threshold θ_0 within the respective picture groups; and

sequentially transmitting the packets in the constructed substream to the terminal, wherein the threshold θ_0 for the predetermined priority is determined by the following equation:

$$\theta_0 = \operatorname{argmax}_{\theta} \{ \varepsilon_G^{(\theta)} < \gamma, E[S^{(\theta)}] \} < C$$

where θ is 0, 1, ... and is equal to a number of packets to which priorities are assigned, γ is a threshold of a preset decoding failure probability, $\varepsilon_G^{(\theta)}$ is the decoding failure probability, $E[S^{(\theta)}]$ is an average data rate of the substream, and C is a channel bandwidth.

5. (currently amended) The packet scheduling method according to claim ~~1~~ 4, 6 or 7, wherein the threshold for the predetermined priority is updated according to variations of data throughput periodically reported from the terminal.

6. (currently amended) The packet scheduling method ~~according to claim 1~~ for streaming multimedia data by a server in a network, the network including the server for providing multimedia data divided into picture groups each having a sequence of N pictures and a terminal for displaying the multimedia data received from the server in a streaming manner, the method comprising the steps of:

dividing the sequences of the pictures into motion part packets and texture part packets, and assigning priorities to the packets according to temporal scaling;

determining a threshold θ_0 for a predetermined priority in consideration of conditions of a channel and a buffer status of the terminal and constructing a substream using packets with priorities below the threshold θ_0 within the respective picture groups; and

sequentially transmitting the packets in the constructed substream to the terminal, wherein the packets received by the terminal have a loss rate of $\varepsilon_p^{(\theta)}$ calculated by the following Equations:

$$\begin{aligned}\varepsilon_p^{(\theta)} &= \varepsilon^\beta; \\ \beta &= \frac{-2B^{(\theta)}(C - E[S^{(\theta)}])}{\sum_k v^{(\theta)}[k]}; \text{ and} \\ \varepsilon_G^{(\theta)} &= \begin{cases} \varepsilon_p^{(\theta)} E[S^{(\theta)}], \theta \leq N-1 \\ \varepsilon_p^{(\theta)} E[S^{(N-1)}], \theta > N-1 \end{cases}.\end{aligned}$$

7. (currently amended) The packet scheduling method according to claim 1 for streaming multimedia data by a server in a network, the network including the server for providing multimedia data divided into picture groups each having a sequence of N pictures and a terminal for displaying the multimedia data received from the server in a streaming manner, the method comprising the steps of:

dividing the sequences of the pictures into motion part packets and texture part packets, and assigning priorities to the packets according to temporal scaling;

determining a threshold θ_0 for a predetermined priority in consideration of conditions of a channel and a buffer status of the terminal and constructing a substream using packets with priorities below the threshold θ_0 within the respective picture groups; and

sequentially transmitting the packets in the constructed substream to the terminal, wherein the packets received by the terminal have a loss rate of $\varepsilon_p^{(\theta)}$ calculated in consideration of a variance of a channel bandwidth by the following equations:

$$\begin{aligned}\varepsilon_p^{(\theta)} &= \varepsilon^\beta; \\ \beta &= \frac{-2B^{(\theta)}(C - E[S^{(\theta)}])}{\sum_k v^{(\theta)}[k] + \sigma_Y^2}; \text{ and}\end{aligned}$$

$$\varepsilon_G^{(\theta)} = \begin{cases} \varepsilon_p^{(\theta)} E[S^{(\theta)}], \theta \leq N-1 \\ \varepsilon_p^{(\theta)} E[S^{(N-1)}], \theta > N-1 \end{cases}.$$